

The invention provides arrays of polynucleotide probes having at least one pooled position. A typical array comprises a support having at least three discrete regions. A first region bears a pool of polynucleotide probes comprising first and second probes. A second region bears the first probe without the second probe and a third region bears the second probe without the first probe. A target nucleic acid having segments complementary to both the first and second probes shows stronger normalized binding to the first region than to the aggregate of binding to the second and third regions due to cooperative binding of pooled probes in the first region. The invention provide methods of using such arrays for e.g., linkage analysis, sequence analysis, and expression monitoring.

I:\JOL\WORK\18547\212\PAT.APP